

Occupational Injury

Definition: Any wound or damage to the body resulting from an event in the work environment. Occupational fatalities as defined by the Washington State Census for Fatal Occupational Injury. Occupational injuries resulting in either lost work time, permanent partial disability or kept-on-salary by employers in the Washington workers' compensation system (compensable claims) - these cases are identified by having any of the following ANSI Z16.2 injury event codes: 010 – 023; 025-132, 200 – 500, and 502-899.

Goal Statement:

- **Reduce work-related injury deaths from 3.4 per 100,000 full-time workers in 2004 to no more than 3.0 per 100,000 full-time workers age 16 years or older by 2010.**
- **Reduce workers' compensation compensable claims rate for serious non-fatal occupational injuries from 1950 claims per 100,000 full-time equivalent (FTE) employees in 2004 to 1560 per 100,000 FTEs by 2010.**

Healthy People 2010 Objectives:

- **Reduce deaths from work-related injury from 4.5 deaths per 100,000 full-time workers age 16 years or older in 1998 to 3.2 deaths per 100,000 full-time workers age 16 years or older in 2010.**
- **Reduce work-related injuries resulting in medical treatment, lost time from work, or restricted work activity from 6.2 work-related injuries per 100 full-time workers age 16 years and older in 1998 to 4.3 injuries per 100 full-time workers age 16 years and older in 2010.**

Statement of the Problem in Washington:

Washington Compared to US Data

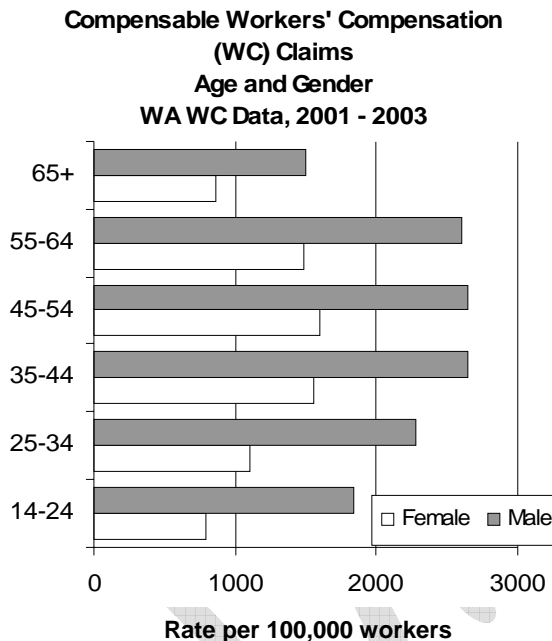
The occupational injury fatality rates are lower in Washington than they are nationally. In 2004, the national occupational injury fatality rate was 4.1 per 100,000 workers and 3.4 per 100,000 workers in Washington. Washington's occupational injury fatality rate is unstable due to the relatively low number of fatalities occurring per year.



Data sources, including those used to compare non-fatal occupational injury rates across states and to the national average are inadequate.^{1,2} The most reliable and accurate estimates of Washington's non-fatal occupational injury rates come from the state-run workers' compensation system. The Washington workers' compensation system accepts over 170,000 occupational injury claims per year. Roughly one-third of all workers' compensation claims result in wage replacement payments (only after four or more lost workdays), partial or permanent disability awards, restricted work duties or a fatality. These are 'compensable' workers' compensation claims.

In 2000, the number of compensable claims from occupational injury was 49,434 which declined to 40,377 in 2004. Likewise, the compensable claim incidence rate declined from 2360 to 1950 claims per 100,000 full-time equivalent employees (FTE) during the same time period.

Age and Gender



From 2001 -2003 males had higher compensable claim occupational injury rates for all age groups. Occupational injury rates for males and females between ages 45 – 54 exceed those of both younger and older workers. Injury rates per 100,000 workers do not differentiate part-time from full time workers and consequently differences in employment patterns across age groups may influence rate differences.

Race and Ethnicity

Race and ethnicity occupational injury rates are not available for Washington State and the United States.

Industry Distribution

Non-fatal occupational injury rates differ by industry sector. Compensable claim rates are highest in the transportation and warehousing industry sector (4490 per 100,000 FTE in

2004). Construction has the greatest number of claims of all industry sectors (5690 compensable claims) combined with a high claims rate (4310 per 100,000 FTE). Compensable claims rates in other industry sectors of interest are for public administration (2750 per 100,000 FTE) and the manufacturing (2080 per 100,000 FTE) industry sectors. Injury types also vary by industry and reflect the distribution of physical hazards in the workplace.⁴

Recommended Strategies

Evidence-based:

1. Regulatory enforcement inspections.

Regulatory enforcement inspections are significantly associated with decreasing compensable workers' compensation claims rates for fixed site employers in a single business location with more than 10 employees. Controlling for previous claims rate and average size, claims rates for employers with WISHA enforcement activity, Washington State's OSHA plan, declined 22.5% in fixed site industry SIC codes compared to 7% among employers with no WISHA activity ($P < 0.05$).⁴

Promising Statewide Strategies to Reduce Occupational Injury:

1. Focusing enforcement and consultation resources.

Directing state occupational safety and health resources to high risk employers and industries for the prevention of occupational injuries is the responsibility of the Washington State Department of Labor and Industries (L&I). Ongoing initiatives and programs within L&I to improve compliance with occupational safety and health regulations include:

- Improved scheduling protocols to direct state enforcement and consultation activities to high risk employers and industries, e.g. construction, transportation and warehousing, manufacturing etc.;
- Continued revision of state occupational safety and health rules to become more understandable to employers and workers;
- Identifying policy gaps where existing workplace safety and health regulation is nonexistent or inadequate;
- Training and outreach to employers regarding occupational safety and health rules, including workshops, training videos and written materials; and
- Translating research into practice for injury prevention by creating training and outreach to employers, workers, safety and health professionals about populations at risk (e.g. younger and older workers), and workplace policies that may impact occupational injury⁵ (e.g. drug-free workplace programs).

2. Expanding Cooperative Programs.

Participants in workplace safety include workers, worker groups, employers, and employer associations. Active engagement with these groups leverages existing state resources. Improvements in worker safety may occur through a variety of voluntary activities:

- Recognition programs for employers with exemplary safety records through the Voluntary Protection Program, and Small Business Recognition Programs;

- Partnerships with industry associations to foster safe workplaces – this may occur through training and education and through the sharing and development of innovative solutions; and
- Financial incentives for primary prevention of injuries through the workers' compensation system, e.g., the retrospective rating program.

3. Develop Social Marketing Campaigns for Occupational Safety and Health.

Occupational safety and health is not limited to the regulatory activities of the state and federal government. Occupational safety and health needs integration into general public health activities. Active involvement of public health agencies and the general public is required to create the expectation of a safe workplace. Campaigns to educate the public about the burden of occupational injury and fatalities may increase awareness and investment into occupational safety and health by society. There is an opportunity to incorporate occupational injury prevention into existing national emphasis prevention programs on violence, drug and alcohol use, and motor vehicle injury. Integrating safety into the workplace using a systems approach that involves multiple strategies for multiple types of injury is likely the most effective means of reducing injury and fatality rates over time.

Implementation Plan:

Activity	Timeline
Goal: Focusing Compliance and Consultation Resources	
Activity	Timeline
Modify L&I consultation and compliance scheduling programs to direct limited resources to high risk industries and employers	By 2007
Develop industry specific prevention programs and educational materials to improve knowledge of occupational injury prevention ideas	By 2007
Ergonomists work with L&I field consultants to provide direct help to employers	Ongoing

Goal: Expanding Cooperative Programs	
Activity	Timeline
Promote partnerships programs with industry groups for occupational injury prevention	Four new industry group partnerships by 2009
Employer involvement in Voluntary Protection Programs	Enroll 15 more sites by 2009

Goal: Develop Social Marketing Campaigns for Occupational Safety and Health.	
Activity	Timeline
Address Safety Needs of the Aging Workplace	Develop and implement aging workforce initiative by 2009
Fatality education and prevention initiative	Spring 2007

Goal: Continue surveillance on occupational injury	
Activity	Timeline
Analyze 1996-2005 workers' compensation data for common types of occupational injuries by industry	July 2007

Resources:

- 1. Setting Up an Occupational Safety and Health Program**
Washington State Department of Labor and Industries: Steps to a Safe Workplace
www.lni.wa.gov/Safety/Basics/Steps/default.asp
- 2. Occupational Safety and Health Rules for Workplaces**
Washington State Department of Labor and Industries: Core Rules
www.lni.wa.gov/wisha/rules/corerules/default.htm
- 3. NIOSH Traumatic Occupational Injury -**
<http://www.cdc.gov/niosh/injury/default.html>
- 4. Occupational Injury Prevention; American Society of Safety Engineers;**
www.asse.org
- 5. Injury Prevention in Construction; Center to Protect Workers Rights (CPWR)**
www.cpwr.org

Articles/Publications:

¹ Azaroff LS, Levenstein C, Wegman DH. Occupational injury and illness surveillance: conceptual filters explain underreporting. Am J Public Health. 2002 Sep; 92(9):1421-9.

² Rosenman KD, Kalush A, Reilly MJ, Gardiner JC, Reeves M, Luo Z. How much work-related injury and illness is missed by the current national surveillance system? J Occup Environ Med. 2006 Apr;48(4):357-65.

³ Bonauto DK, Silverstein BA, Adams D, Foley M. Prioritizing Industries for Occupational Injury and Illness Prevention and Research, Washington State Workers' Compensation Claims, 1999-2003. J Occup Environ Med. 2006 Sep;48(8):840-851.

⁴ Baggs J, Silverstein B, Foley M. Workplace Health and Safety Regulations: Impact of Enforcement and Consultation on Workers' compensation Claims Rates in Washington State. Am J Ind Med 2002 43:483-494.

⁵ Wickizer TM, Kopjar B, Franklin G, Joesch J. Do Drug-Free Workplace Programs Prevent Occupational Injuries? Evidence from Washington State. Health Services Research. 2004 Feb;39(1):91-110.

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